I claim:

1. In a machine adapted to perform a machining function on a workpiece wherein said machine has at least one forming station including at least one forming roller and at least one chuck element having a forming surface cooperative with said forming roller to perform the machining function and wherein said machine has a positioning mechanism operative to advance so as to move said workpiece from a disengaged position, through an intermediate position and into an engaged position in said forming station wherein the machining function can be performed thereon and to retract whereby wherein said workpiece can be ejected from said forming station, an improvement comprising a resilient element formed of a flexible, compressible first material, said resilient element mounted to said chuck element and positioned so that when the workpiece is in the intermediate position, a first portion of said resilient element is operative to apply a first force to the workpiece and when said workpiece is in the engaged position a second portion of said resilient element different from said first portion is operative to apply a second force to the workpiece and such that, when said positioning mechanism retracts, said first and second portions of said resilient element exert first and second restorative forces, respectively, on said workpiece thereby to eject said workpiece from the forming station.

2. The improvement according to claim 1 wherein said first portion is defined by a central region of said resilient element and wherein said second portion is defined by a marginal region of said resilient element.

3. The improvement according to claim 2 wherein said marginal region is formed as a peripheral lip extending around the perimeter of said resilient element.

4. The improvement according to claim 2 wherein said central region has a first thickness and wherein said marginal region has a second thickness that is greater than the first thickness.

5. The improvement according to claim 2 wherein said central region is provided with a head structure.

6. The improvement according to claim 5 wherein said head structure is formed as an integral one-piece construction with said central region.

7. The improvement according to claim 6 wherein said head structure has a rounded contact surface oriented to contact said workpiece when said workpiece is moved from the disengaged position toward the intermediate position.

8. The improvement according to claim 6 wherein said head structure has a flat contact surface oriented to contact said workpiece when said workpiece is moved from the disengaged position toward the intermediate position.

9. The improvement according to claim 5 wherein said head structure is defined by a plug disposed on said central region.

10. The improvement according to claim 9 wherein said plug is formed of a second material different from said first material.

11. The improvement according to claim 10 where said second material is lubricious.

12. The improvement according to claim 9 including a stanchion ring disposed on said central region, said plug being supported by said stanchion.

13. The improvement according to claim 1 wherein said chuck element has a central axis extending longitudinally therethrough and a recess formed at one end thereof whereby an upstanding peripheral rim extends peripherally around the one end of said chuck element, said resilient member being disposed in the recess.

14. The improvement according to claim 13 wherein a groove is formed in said recess, said resilient element including a central panel region having a ridge structure projecting away from a first side thereof, said ridge structure operative to be matably received in said groove thereby to secure said resilient element in a fastened state to said chuck assembly.

15. The improvement according to claim 14 wherein said groove has a wall formed at a large acute angle relative to a transverse plane that is oriented perpendicularly to the central axis of said chuck assembly and wherein said ridge structure is formed at the large acute angle whereby said central panel region extends transversely of said chuck assembly when in the fastened state with said ridge structure and said groove being in snap-fitted engagement with one another.

16. A chuck assembly mountable to a machine adapted to perform a machining function on a workpiece wherein said machine includes a spindle adapted to releasably mount said chuck assembly and at least one forming roller operative to interact with said chuck assembly

thereby to form a work station operative to perform a machining function on said workpiece, said machine including a positioning mechanism operative to advance so as to move said workpiece from a disengaged position, through and intermediate position and into an engaged position in said forming station wherein the machining function can be performed thereon and to retract whereby said workpiece can be ejected from said forming station, said chuck assembly comprising:

(A) a chuck element releasably mountable to said machine, said chuck element having

(1) a rim provided with a forming surface cooperative with said forming roller to perform the machining function, and

(2) a recess bounded by said rim; and

(B) a resilient element mounted to said chuck element and disposed in the recess, said resilient element

(1) formed of a flexible compressible first material, and

(2) sized and adapted so that

(a) when said workpiece is in the intermediate position, a first portion of said resilient element engages said workpiece and is operative to apply a first force to the workpiece, and

(b) when said workpiece is the engaged position, a second portion of said resilient element different from said first portion is operative to apply a second force to the workpiece, and

(c) when said positioning mechanism retracts, said first and second portions of said resilient element exert first and second forces, respectively, on said workpiece thereby to eject said workpiece from the forming station.

17. A chuck assembly according to claim 16 wherein said first portion is defined by a central region of said resilient element and wherein said second portion is defined by a marginal region of said resilient element.

18. A chuck assembly according to claim 17 wherein said chuck element has an axial passageway extending therethrough, said central region extending transversely across the axial passageway with said marginal region being formed as a peripheral lip extending around the perimeter of said resilient element.

19. A chuck assembly according to claim 18 wherein said central region has a first thickness and wherein said marginal region has a second thickness that is greater than the first thickness.

20. A chuck assembly according to claim 19 wherein said chuck element has a groove formed in said recess proximately to said rim such that the groove is bounded by said rim and an inner groove wall, said resilient element including a ridge structure projecting away from a first side thereof, said ridge structure operative to be matably received in said groove thereby to secure said resilient element in a fastened state to said chuck element with said marginal region supported against said inner groove wall.

21. A chuck assembly according to claim 17 wherein said central region has at least one vent port formed therethrough.

22. A chuck assembly according to claim 17 wherein said central region is provided with a head structure.

23. A chuck assembly according to claim 22 wherein said head structure is formed as an integral one-piece construction with said central region.

24. A chuck assembly according to claim 22 wherein said head structure is defined by a plug disposed on said central region.

25. A chuck assembly according to claim 24 wherein said central region has a bore formed therethrough, said plug including an enlarged contact head and a shaft extending from said contact head, said shaft mounted through the bore thereby to secure said plug to said resilient element.

26. A chuck assembly according to claim 25 wherein said shaft is provided with at least one vane, and including a locking washer operative to engage said vane thereby to mount said plug to said resilient element.

27. A chuck assembly according to claim 25 wherein said central region has an annular stanchion surrounding the bore, said contact head being supported on said stanchion.

28. A chuck assembly according to claim 24 wherein said plug is formed of a second material different from said first material.

29. A chuck assembly according to claim 28 wherein said second material is nylon.

30. A chuck assembly according to claim 16 wherein said rim, said recess and said resilient element are circular in shape.

31. A chuck assembly mountable to a lid seamer that is adapted to seam a lid onto an upper rim of a container to produce a lidded container, said lid seamer including an elongated spindle having a longitudinal passageway therethrough that is adapted to slideably mount an ejector rod and that is adapted to releasably mount said chuck assembly and including at least one seaming roller operative to interact with said chuck assembly thereby to define a work station for joining a peripheral edge of said lid and the upper rim of said container, said lid seamer including a positioning mechanism operative to advance so as to move said lid and said container from a disengaged position, through an intermediate position and into an engaged position in said forming station and to retract whereby said lidded container can be ejected from said forming station, said chuck assembly comprising:

(A) a chuck element releasably mountable to said spindle and having

(1) an upstanding rim provided with a forming surface cooperative with said forming roller to perform a seaming function,

(2) an axial opening extending therethrough that is axially aligned with the longitudinal passageway when said chuck element is disposed on said spindle, and

(3) a recess bounded by said rim and defining a seat; and

(B) a resilient element disposed in the recess of said chuck element, said resilient element including

(1) a central panel portion formed of a flexible, resilient material, said central panel portion

(a) extending across the axial opening and

(b) having a head structure disposed thereon, and

(2) a margin portion formed of a compressible material supported against said seat,

such that, when said positioning mechanism advances said workpiece form the disengaged position to the intermediate position, said head structure contacts said lid and said central panel portion flexes with a first force, and

such that, when said positioning mechanism advances said workpiece from the intermediat position to the engaged position, said margin portion compresses with a second force, and

such that, when said positioning mechanism retracts, said resilient element exerts a restorative force on said lidded container thereby to reject said lidded container from the forming station.

32. A chuck assembly according to claim 31 wherein said central panel poriton has at least one vent port formed therethrough communicating with the axial opening in said chuck element.

33. A chuck assembly according to claim 31 wherein said head structure is formed as an integral one-piece construction with said central panel portion.

34. A chuck assembly according to claim 31 wherein said central panel portion and said margin portion are formed as an integral one-piece construction out of a material that is both resiliently flexible and compressible.

35. A chuck assembly according to claim 31 wherein said head structure is defined by a plug disposed on said central region.

36. A chuck assembly according to claim 35 wherein said central region has a bore formed therethrough, said plug including an enlarged contact head and a shaft extending from said contact head, said shaft mounted through the bore thereby to secure said plug to said resilient element.

37. A chuck assembly according to claim 36 wherein said central region has an annular stanchion surrounding the bore, said contact head being supported on said stanchion.

38. A resilient element adapted to mount on a chuck assembly, comprising

(A) a central panel portion formed of a flexible, resilient material, said central panel portion;

(B) a margin portion extending around said central panel portion and formed of a compressible material; and

(C) a head structure disposed on said central panel portion.

39. A resilient element according to claim 38 wherein said margin portion is thicker than said central panel portion.

40. A resilient element according to claim 38 wherein said head structure is formed as an integral one-piece construction with said central panel portion.

41. A resilient element according to claim 38 wherein said central panel portion and said margin portion are formed as an integral one-piece construction out of a material that is both resiliently flexible and compressible.

42. A resilient element according to claim 38 wherein said head structure is defined by a plug disposed on said central region.

43. A resilient element according to claim 38 wherein said central region has an annular stanchion surrounding the bore, said plug being supported on said stanchion.

44. A method of ejecting a work piece from a machine that is adapted to perform a machining function thereon where said machine includes a chuck element having a seat adapted to receive said workpiece in an engaged position, at least one forming roller operative to interact with said chuck element thereby to define a forming station for performing the machining function and a positioning mechanism operative to advance so as to move said workpiece from a disengaged position, through an intermediate position and into an engaged position in said forming station and to retract whereby said workpiece can be ejected from said forming station, comprising the steps of:

(a) securing a resilient element in fixed relation relative to said chuck element in a manner such that a central portion of said resilient element will be contacted by and deflected by said workpiece when said

workpiece is moved into the intermediate position thereby to exert a first restorative force tending to eject said workpiece from said chuck element;

(b) advancing said positioning mechanism whereby said workpiece is moved from the intermediate position into the engaged position simultaneously compressing a margin poriton of said resilient element thereby to exert a second restorative force tending to eject said workpiece from said chuck element;

(c) holding said workpiece in the engaged position against the restorative forces until the machining function is completed; and

(d) retracting said positioning mechanism after the machining function is completed whereby to allow said resilient element to rebound to eject said workpiece, said resilient element being constructed such that the first and second restorative forces applied thereby are sufficient to eject said workpiece from said forming station after the machining function is performed thereon.

45. The method according to claim 44 wherein said machine is a lid seamer and wherein the machining function is seaming an end closure onto a container body.